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Notes on the Fauna of the Gilgit District.—By Capt. A. H. McMahon, F.Z.S., F.G.S., F.R.G.S., C.S.I., C.I.E.

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By the term Gilgit I mean the country included within the geographical limits of the present Gilgit Political agency. It comprises besides Gilgit proper the states of Hunza, Nagar and Yasin; the Astor and tributary valleys; Chilas; and the Upper Indus valley with its tributary valleys from Haramosh as far south as Hodur. Briefly, I refer to the country bounded on the North by Wakhan and the Pamirs; on the East by the Mustagh range and Baltistan; on the South by the Burzil, Kamri and Bahusar Passes leading into Kashmir and Hazara; on the West by the Shandur Pass and the independent territory of Tanjir and Darel. Comprising as this tract does a mountainous country of lofty ranges with several peaks over 25,000 feet and countless others between 20,000 and 25,000 feet in height, it may justly lay claim to being one of the most lofty tracts of country on the surface of our globe.

Any information therefore which we may obtain and collect regarding the fauna of this country cannot fail to be of interest to the zoological world. It is on this account that I venture to place on record the results of such observations as I have been able to make during my stay (in 1897-98) in the Gilgit Agency. Such as they are they may help to corroborate the results of the zoological researches of Biddulph, Scully, and Alcock in portions of the same tract, and perhaps in a few instances also to add to them.

With but few exceptions the fauna of the country may be termed nomadic. The reptiles, and a few mammals only such as the marmots, the rats, the hamsters and voles can be said to have any permanent residence throughout the year. Even the rat leaves his summer country house in the fields for his winter one in the shelter of the roofs and walls of houses on the approach of the cold season. The other mammals are purely nomadic. As the heat in the lower valleys increases they betake themselves higher and higher into the upper valleys, either following the lower fringe of snow line, as in the case of markhor, (Capra falconeri), Shapu (Ovis vignei), hares, lynxes, wolves, foxes, wild dogs, bears and martens; or keeping above the snow line nearly all the year round as in the case of ibex (Capra Sibirica) and snow leopards. The fishes too range widely throughout the year, ascending in the summer to the very feet of the glaciers and retreating in the winter down to the warmer waters of the Indus Valley.

The birds, as in most other countries, travel widely; the majority are only winter visitors; some pause merely for a short rest on their journeys to and from India from Central Asia and other northern climes; others stay the whole winter. Even those which one might perhaps call permanent Gilgit residents, such as the Lämmergeier (Gypaetus barbatus) and certain eagles and hawks, abandon the lower valleys and resort to the upper ones for the summer.

One cannot fail to be struck by the absence of animal life in the lower valleys in the summer. The carcases of animals which in most other countries, summer or winter, would soon be picked clean by beasts and birds, lie untouched throughout the entire summer. With the first approach of cold, down come the wolves, foxes, dogs, vultures and all the world of nature's scavengers, and the carcase which has lain so long untouched disappears as if by magic; even the bare bones disappear, carried off by the majestic Lämmergeier, which swoops down on them the moment the more vulgar crowd have left them. Unlike the summer, no sooner does a beast die or fall a victim to the sportman's bullet in the winter than down come the vultures on to it, and if of small size it may be carried off before his very eyes before the sportsmen can get up to it. Many a dispute one sees between the first arrivals. I once saw a lordly Griffon Vulture (Gyps himalayanus) alight on the carcase of a cow, followed by some crows, the common Jungle Crow (Corvus macrorhynchus). One would have thought the meal sufficient for all, but the crows evidently did not think so, for they at once set upon the luckless vulture and turned him out. It only took three crows to eject him, and not content with removing him, they followed him in the air taking pecks at him from behind to accelerate his movements. Two returned, but the third remained in attendance, and whenever the Griffon showed signs of turning the crow renewed his attacks, and this went on until the strange couple were lost to sight.

Mammalia.

Regarding mammals I can give little information not already collected by former observers; I can however add to the fauna already recorded two more animals hitherto unknown to be in the Gilgit District, i.e. (1) the Bharal (Ovis nahura). I first heard of a pair of horns being picked up on the Mintaka Pass leading into the Pamirs. Subsequently I obtained two more horns and one good specimen of the entire animal. They are to be found in small numbers only in Gujhal (the upper Hunza valley) near Passu. I am told they are in large numbers in Raskam on the north of the Mustagh range. (2) The ermine (Putorius Erminea) not hitherto reported within the Gilgit district. I obtained specimens which came from the forest regions in the upper valleys of Chilas.

While in the Hunza and Nagar countries I was much struck with the large numbers of the Beech Marten (Mustela foina) which descend in winter into the Hunza Nagar valley, to altitudes of 6,000 ft. or so and take up their abode in the walls of the villages and houses. I found that a small reward would obtain me any quantity in these villages, and in fact I soon had to prohibit any more being brought to me.

Before leaving the mammals, I would invite the attention of zoologists to the question whether the Tibet Marmot (Arctomys himalayanus), the smaller Himalayan Marmot (Arctomys hodgsoni), and Longtailed Marmot (Arctomys caudatus) are not all one and the same species, the tail differing in length according to age. I cannot help thinking that they are one species. I have just sent home to the Zoological Society of London a live specimen of a young Marmot caught in the Burzil Pass, the habitat of the Arctomys caudatus. At present by tail measurement he is an Arctomys himalayanus; I fully expect he will grow into an Arctomys caudatus, or failing that by reason of confinement, remain at the intermediate stage of Arctomys hodgsoni.

Reptilia and Batrachia.

These are represented by but few kinds in this country. Those that exist there have to put up with a long period of hibernation amounting in the case of some to about eight months out of the twelve.

The Himalayan Viper (Halys himalayanus) is very common in wooded tracts. I was struck with the number of cobras (Naia tripu-

dians) which exist in Gilgit itself and the Indus Valley. I obtained many specimens and heard of others. These are all of the black variety. I have never heard however of any one ever having been bitten by cobras in the Gilgit District.

From what I could hear the *Echis carinata* is common in the Indus Valley in the neighbourhood of Chilas, but I never obtained a specimen.

The following lizards abound in the lower portion of the Astor and in the Indus Valleys, but are only to be seen in the summer months.

(1) Agama tuberculata—noticeable for its deep jet black colouring on the head and back. (2) Agama himalayana. This in life has a pretty pale pink colouring over the throat.

The little Mabuia is very common in the upper Astor and other neighbouring valleys. I noticed no other lizards in the district.

Birds.

The winter visitors are very numerous, and as mentioned before the majority merely pass through the country on their way to and from India; others remain throughout the winter. I have naturally been unable to make anything that would in the least approach to being an exhaustive list of the birds to be found in the district. I will content myself with giving, with a few remarks when necessary, a list of those birds only of which I have brought specimens for the Indian Museum.

Gypaetus barbatus. Very common in the winter.

Gyps himalayensis.

Hieraetus fasciatus. Differs slightly from type by having 3rd quill slightly the longest.

Buteo ferox.

Circus aeruginosus.

Buteo desertorum. This has been seen to catch uninjured mallard; one also seized and carried off a woodcock which had been shot.

Circus cyaneus.

Falco barbarus. I only obtained two specimens, and I do not think they are common in the Gilgit district. One of the above was shot after seizing a pigeon and biting off its head in mid air.

Accipiter nisus.

Falco subbuteo. One specimen was caught by the hand sitting in a bush.

Tinnunculus alaudarius. Very common.

Gecinus squamatus. Very numerous. On one occasion when out have shooting through low scrub, I put up large numbers. They seem to feed in the patches of highish grass growing at the foot of small trees, and their habits in this particular seem greatly to resemble the woodcock's.

 $Erismatura\ leucocephala.$

Merganser castor.

Aegialitis dubia.

Porzana parva.

Corvus macrorhynchus. Very common.

Corvus cornix. Fairly common.

Graculus eremita. This and the yellow-billed chough (Pyrrhocorax alpinus), are very common.

Pica rustica. Very common; to be seen in large flocks everywhere in the district.

Merula maxima. This specimen appears to agree closely with the so-called species Merula maxima, but the Indian Museum specimens show so much gradation between this and the European variety M. merula that there would seem good grounds for supposing both to be one and the same species, especially as exactly the same difference in size exists between the European and Himalayan varieties of Missel Thrush. (Turdus viscivorus).

Trochalopterum lineatum. Very common.

Chimarrhornis leucocephalus. Generally seen making short flights from boulder to boulder in the beds of mountain streams. It constantly moves its tail vertically upwards in sharp jerks, but does so somewhat slower than a water-wagtail.

Ruticilla erythrogaster.

Carduelis caniceps. Very common in winter.

Tichodroma muraria.

Galerita cristata. Very common.

 ${m E}mberiza\ strackeyi.$

Among rare visitors I should note that two specimens of the Mute swan (Cygnus olor) were obtained in the winter of 1897 at Chilas.

I am much indebted to Major A. Alcock, I.M.S. and Mr. F. Finn, of the Indian Museum for the kind assistance given me in verifying and correcting the classification of my specimens.